## MAPPING FOCUS TO PROSODY IN ITALIAN: THE CASE OF WH-QUESTIONS

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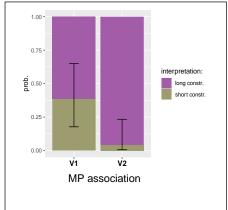
1. In Italian, an exceptional prosodic pattern is observed in direct fully fledged wh-questions with bare wh-elements: Main Prominence (MP) fails to be assigned to the wh-element and to the default rightward position. In these structures, MP is rather typically assigned to the lexical verb: the latter, however, is not interpreted as narrowly focused (cf. Calabrese 1982, Ladd 1996, Marotta 2001, Bocci, Bianchi & Cruschina 2021; by MP we mean at once nuclear pitch accent and sentential stress):

(1) A chi hanno **chiesto** un aumento (*MP marked by boldface*) to whom have.3PL asked for a pay rise

This spectacular dissociation of MP and focal interpretation raises the question of whether and how hearers are sensitive to this marked prosodic pattern in understanding a question. Our starting hypothesis was that MP placement is an *effect of cyclic wh-movement* and in particular, it marks a lexical phase head whose edge hosts an intermediate link of the wh-chain, as required by the Phase Impenetrability Condition. Furthermore, data from a production experiment (cf. Bocci, Bianchi & Cruschina 2021) showed that in biclausal questions with long distance wh-movement, main prominence can be assigned to the lexical verb either in the embedded clause or in the matrix clause. In contrast, in case of biclausal wh-questions with short distance wh-movement, MP is invariably assigned to the lexical verb in the matrix clause.

- **2.** To assess the role of prominence distribution in comprehension, we tested trials containing shorts dialogues ending with a bi-clausal wh-question like (2B), which is compatible with both a long-movement and a short-movement construal, due to the optionality of the goal arguments (highlighted in italics in the context sentence (2A)):
- (2) A: Ho detto *all'amministratore* che i Bianchi hanno mandato una diffida *a Carla*. have.1sG said to-the building manager that the Bianchi have sent a formal-notice to Carla. B: Scusa, non ho capito. A chi hai detto\_\_ che hanno mandato\_\_ una diffida? sorry, neg have.1sG understood to whom have.2sG said that have.3pL sent a formal-notice 'To whom did you say that they sent aletter of formal notice?'

Given the context (2A), two answers are congruent with the question in (2B): one involving the goal argument of the matrix predicate (e.g. to the building manager) and the other involving the goal of the embedded predicate (e.g. to Carla). Participants were asked to listen to the dialogue and answer a wh-question like (2B) taking Speaker A's role. The collected answers were recoded as corresponding to a short or long construal interpretation of the wh-question.



We manipulated MP placement in the wh-questions: MP falls either on the matrix verb V1 (e.g. *detto*) or on the embedded clause verb V2 (e.g. *mandato*). The prediction is that, if MP marking is relevant in comprehension, it should affect the participants' interpretation: in particular, MP on V2 would mark long-distance movement, invariably inducing the long construal. We tested 8 items under two conditions (MP on V1 vs. V2) and 40 native speakers of Italian. The results (Fig. 1) show that MP placement is a clue that hearers exploit to parse the structure in input. When MP is placed V2, a mixed effects

regression reveals that there is a significant preference (p<.002) for the long-distance construal (right-hand columns); when MP is assigned to V1, the interpretation is not different from chance (left-hand column). These data are in line with the production results in Bocci, Bianchi & Cruschina (2021).

- **3.** The evidence from comprehension confirms that MP placement is sensitive to the derivational history of the wh-phrase. Based on Bocci, Bianchi & Cruschina (2021) we adopt the syntactic assumptions (i)-(ii):
- (i) In Italian, wh-phrases are endowed with [wh] and [focus] features. (Rizzi 1997, a.o.).
- (ii) Under cyclic movement, wh-phrases *optionally* agree for [focus] with the phase heads whose edge they move through. Agreement is only mandatory in the final landing site.

As for the syntax-prosody interface we assume that:

- (iii) a. MP is assigned to the rightmost non-null element that is endowed with [focus]. b. If none bears [focus], MP is assigned by default to the rightmost non-null element.
- (iv) The prosodic structure is organized in accordance to Strict Layer Hypothesis principles/constraints (Selkirk 1995; Truckenbrodt 19995, 1999).
- (v) The element which is assigned MP must be right-aligned with a phonological-phrase boundary (cf. Truckenbrodt 1999, a.o.)
- (vi) Functional elements cannot project as independent phonological phrases, unless they are the only pronounced elements within an intonational phrase (cf. Selkirk 1996).

We will show that in Italian, the interaction between (iii.)-(v.) and (vi.) penalizes syntactic structures in which the only element endowed with [Focus] is a purely functional bare whphrase. More specifically, (iii.a) excludes the default prominence-assignment in fully-fledged wh-questions, while (iii.)-(vi.) prevent MP assignment to the wh-element. Therefore, a derivation in which the bare wh-element only agrees in its final landing will be always penalized over a derivation in which at least one lexical element obtains [focus] through optional agreement since only in the last type of derivation can (vi.) be satisfied.

Under long-distance movement, the wh-phrase passes through the edge of the embedded vP and CP, then to the matrix vP, finally to the landing site in the matrix Spec,CP, as shown in (3):

$$(3) \left[ {_{CP1}} \ \ WhP_FC^0{_F}... \left[ {_{vP1}} < whP_F > \ v^0{_{(F)}} \ ... \left[ {_{CP2}} \ < whP_F > C_{(F)} \ ... \left[ {_{vP2}} < whP_F > \ v^0{_{(F)}} \left[ {_{VP}}... < whP_F > \ \right] \right] \right] \right]$$

If the wh-phrase agrees in the edge of vP2 by (ii), the embedded clause  $v^0$  head inherits [focus]. The head incorporates the lexical verb V2, and at the syntax-prosody interface, it qualifies as the rightmost [focus]-marked element and is assigned MP by (iii.a) and both (v.) and (vi.) are satisfied. Alternatively, if the wh-phrase agrees in the edge of the matrix vP1, the matrix verb V1 qualifies for MP assignment. Thus, long-distance movement is compatible with both prosodic structures. In contrast, when the whP undergoes short-distance movement, it only passes through the edge of the matrix clause vP1. The matrix  $v^0$  receives the [focus] feature by Agree, and it is assigned MP: thus, the short-distance interpretation is only compatible with one prosodic structure.

- **4.** The assumption in (vi) is specific to Italian. Jitcă et al. (2015) report that in Romanian bare wh-elements systematically associate with main prominence. Notably also in Italian the interaction among (iv)-(vi) does not prevent a bare wh-phrase from associating with main prominence: in wh-fragments like (4), (vi) does not apply since the wh-element is the only overt element in the intonational phrase:
- (4) A: Hanno rotto qualcosa. B: Che **cosa**? have.3PL broken something what?

## **Selected References:**

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